REMARKS

These comments are responsive to the non-final Office Action dated August 28, 2006, for which a one-moth extension is hereby requested. The Office Action allowed claims 5-7, 13-26, and 30-32 and rejected claims 1-4, 8-12, and 27-29 under 35 U.S.C. § 102(e) as being anticipated by Aasheim et al. (US Patent Publication No. 2003/0163663 A1). It is respectfully submitted that these rejections are in error.

Claims 1-4, and 8-10

Claims 2-4 and 8-10 are all dependent claims having claim 1 as their base claim, or, in the case of claim 8, formerly dependent on claim 1 but now rewritten in independent form. Claim 1 reads:

> 1. A non-volatile memory comprising a plurality of data storage areas, each of
> the data storage areas containing:
> a user data portion; and
> an overhead data portion, wherein the overhead data portion of each data storage
> area contains a first flag for indicating that another one of the data storage areas is
> correctly written.

The claim states that the "first flag" indicates that "another one of the data storage areas is correctly written." As a simple matter of causality, this requires that the first flag cannot be determined until *after* it is known whether or not this "another one of the data storage areas" has, in fact, been correctly written. In particular, the first flag's value cannot be set before (or even at the same time) the "another one of the data storage areas" is written, but only upon knowing that the write operation has been successful.

For the first flag of the claim, the Office Action refers to Aasheim's paragraph [0073] and Figure 8, specifically the entries in the "Metadata Area" 806; however, it is respectfully that the shown entries are something quite different, as is believed clear from a careful reading of Aasheim's paragraph [0073]. What these entries indicate, rather, is where (i.e., in which physical sector) the next sector (logical sector) in a group of logical related sectors (as in a file) can be found. That is, it is a "linked list" showing that the next logical sector after that written into, for example (see Aasheim's Figure 8), physical sector 2 is to be found in physical sector 5— all assuming that this next logical sector will, in fact, subsequently be successfully written into physical sector 5. As the "Metadata Data" portion, along with the "Data Region" portion, of physical sector 2 is written *prior* to physical sector 5 being fully written, this "Metadata Area"

entry is (at the time it is written), indicative of the *intention* to write the next logical sector, not an indication that it *has been* correctly written, as required by the claim.

Consequently, these values in the "Metadata Area" cannot be based on whether these other sectors have been correctly written. Rather, these values only indicate the sector where the next portion of the data group *is to be written* as there cannot be, as of yet when this value is written, any knowledge of whether this next sector of data will have been correctly written or not: that is, what is being entered into the "Metadata Area" is more of a hope than an indication that what has happened. In the normal course of memory operation, this hope will eventually become the fact; but it is precisely those cases when this intention fails that is one of the ways in which this aspect of the present invention is of use.

Consequently, for at least these reasons, it respectfully submitted that a rejection of claim 1 and claims 2-4 and 8-10 under 35 U.S.C. § 102(e) as being anticipated by Aasheim is in error and should be withdrawn.

Both here and below, it is believed that a number of the dependent, or formerly dependent, claims are further allowable for the additional limitations they recite; however, as the independent claims are already believed to be quite distinct from what the Office Action is presenting from the prior art, these additional reasons will not be given at this time.

Claims 11 and 12

Claim 11 is independent and claim 12 depends on claim 11. Claim 11 reads:

> 11. A non-volatile memory comprising a plurality of units of erase each having a plurality of data storage areas, each of the data storage areas containing:
> a user data portion; and
> an overhead data portion,
> wherein the overhead data portion of a predetermined data storage unit in each of the units of erase further contains a flag for indicating that the unit of erase to which the predetermined data storage unit belongs has had an erase operation completed.

Consequently, the "flag" for each of the "units of erase" is stored in the "overhead" of one of the "data storage areas" of the given "unit of erase" for which the flag indicates that the erase operation has been completed. Thus, the flag is recorded in one of the overhead of the unit of erase in the non-volatile memory itself. This is neither taught nor suggested by Aasheim.

For the "flag" of the claim, the Office Action refers to Aasheim's paragraph [0106] and element "Clear Pointer" 1502 as shown there in Figure 15. However, Aasheim's paragraph's

[0106] is quite clear that the "clear pointer"1502 is maintained by the "compactor module" 708, which as can be seen in Figure 7 is part of the "Media Abstraction Layer" 606, which is in turn part of the logic layer 602 that is part of the file system 600, as can be seen from Figure 6. As is clear from Figure 6, this is *not on the Flash Memory Medium* 601. Specifically, it is not in what the Office Action identifies as the "overhead data portion", namely "Metadata Area" 806; rather, this "clear pointer" is part of Aasheim data management structure. Therefore, Aasheim neither discloses nor suggests that "the overhead data portion of a predetermined data storage unit in each of the units of erase further contains a flag for indicating that the unit of erase to which the predetermined data storage unit belongs has had an erase operation completed."

Consequently, for at least these reasons, it respectfully submitted that a rejection of claim 11 and its dependent claim under 35 U.S.C. § 102(e) as being anticipated by Aasheim is in error and should be withdrawn.

Claims 27-29

Claims 28 and 29 are dependent claims having claim 27 as their base claim. Claim 27 reads:

> 27. A method of operating a non-volatile memory, comprising:
> erasing the data content of a block of the non-volatile memory, wherein the block comprises a plurality of sectors each having a data portion and an overhead portion;
> verifying that the block is successfully erased; and
> writing an indication that the block is successfully erased into the overhead portion of a designated one of the sectors.
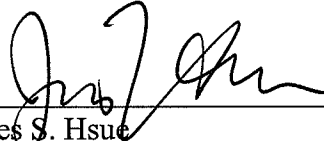
This is a method equivalent of claim 11. As with claim 11, the Office Action again identifies the "indication" of the claim with the "clear pointers" of paragraph [0106] and Figure 15. As discussed with respect to claim 11, this pointer is *not* written into the overhead of a portion of the block to which the indication refers (or anywhere else in the non-volatile memory, for that matter), but is instead in "file system" 600 of Aasheim's Figure 6.

Consequently, for at least these reasons, it respectfully submitted that a rejection of claim 27 and its dependent claims under 35 U.S.C. § 102(e) as being anticipated by Aasheim is in error and should be withdrawn.

Conclusion

For the reasons above, it is believed that the various rejections of claims 1-4, 8-12, and 27-29 are not well founded and should be withdrawn. Reconsideration of these claims and an early indication of their allowability and an early indication of their allowance are earnestly solicited.

Respectfully submitted,

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